



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,007	06/27/2003	Young-Sang Byun	8734.217.00-US	4940
30827 7590 06/29/2007 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			EXAMINER NGUYEN, DUNG T	
			ART UNIT 2871	PAPER NUMBER
			MAIL DATE 06/29/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/607,007

Applicant(s)

BYUN ET AL.

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-25 and 27 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 15-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-12, 14, 22-25 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/28/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/28/2007 has been entered.
2. Applicants' amendment dated 02/28/2007 has been received and entered. By the amendment, claims 9-12, 14, 22-25 and 27 are now pending in the application. Claims 1-8 and 15-21 stand withdrawn from consideration.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 9-12, 14, 22-25 and 27 stand rejected under 35 U.S.C 102(e) as being anticipated by Matsuda, US Patent No. 6,646,689, as stated in the previous office action.

The above claims are anticipated by Matsuda's figures 2, 4, 7-12 and accompanying text which disclose a method of manufacturing an liquid crystal display (LCD) device having a first substrate and a second substrate comprising:

. an alignment layer line (forming orientation film), wherein a plasticizing line including an alignment controlling force inherently exists during orientation film processing (i.e., rubbing method).

Art Unit: 2871

- . patterned spacers (forming spacer);
- . a liquid crystal layer line (dropping liquid crystal);
- . a sealant coating line (forming sealing material);
- . an assembling line (UV irradiating and actual UV curing);
- . a cutting line (cutting panel);
- . a plurality of buffer lines (Matsuda's improvement, i.e., restraining step, see abstract) by using the carrying robot (9) (see figure 4) between the lines during processing to synchronize the first and the second substrates ;
- . an inspecting line being an inherent step to complete the LCD manufacturing.

Response to Arguments

3. Applicant's arguments filed 09/05/2006 have been fully considered but they are not persuasive.

Applicant's arguments are as follow:

- a. In Matsuda, the robot itself does not maintain the second substrate 32.
- b. In Matsuda, the robot is only disposed between a sealing line and an assembling line.

The Examiner's responses are as follow:

- a. The Examiner respectfully disagrees with Applicant's viewpoint. As asserted by Applicant, the robot (9) picks up the second substrate (32) and transfers to the shutter (6a) and keeps the second substrate (32) in an existing state through the pin (12a). In other words, although the robot (9) is not directly maintain the second substrate (32), the robot (9) does

Art Unit: 2871

transfer the second substrate to the pin (12a) for waiting the first substrate (31); and together with the pin (12a) acts as one of buffer lines.

b. The Examiner, again, respectfully disagrees with Applicant's viewpoint. In particular, the robot (9) has a function of pickup the second substrate (32) to the shutter (6a) and maintain over the pin (12a) (i.e. buffering line between alignment and liquid crystal dropping. The robot (9) also pickup the first substrate (31) to stage 8a for dispersing liquid crystal and then coating a sealant (i.e. buffering between liquid crystal line and sealant coating line). Finally, the robot (9) transfers the first substrate (31) to the shutter (6a)(i.e. buffering between sealant coating and assembling) and then also synchronizes the first and the second substrates to each other. Accordingly, the main component robot (9) does have a function of buffering between all processing lines as well.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
06/25/2007

/Dung Nguyen/
Dung Nguyen
Primary Examiner
Art Unit 2871